

# 4. Space Explorer

## Activity Structure – 45min

Activity	Timing
Warm up Game	5 mins
Introduce Story and Project	10 mins
Main Activity	25 mins
Final test & debug	Throughout
Share with group	5 mins

### Overview

This is the first trip to the moon for this Spaceperson, they have a good look around the moon, recording a commentary of what they encounter when the spaceperson “Bumps” a character,

### Learning Objectives

- To use Start on Bump trigger block.
- To record a narration with a clear voice and an awareness of an audience.

## National Curriculum / EYFS Curriculum Links

### Mathematics Shape, space and measures:

Children use everyday language to talk about size, position, and time to compare quantities and objects and to solve problems

## Warm up game: Start on bump

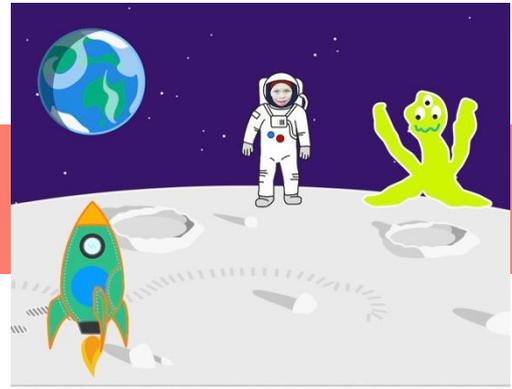
### Traffic Light Game

1. You'll need the following: flashcards (wait, stop, Start on Green Flag and Start on Bump)
2. Tell the children that today you are going to have a go at 'coding' them. They will be your 'characters'.
3. Pick three children to demonstrate how the game works.
4. Ask the children to move around the space. Depending on how calm your children are they could walk, hop, skip etc. Tell them to follow the coding instructions you give them (hold up).
5. Stop, wait and green flag are quite simple. On bump – pick a sensible child to have the job of 'bumping' the children to trigger them to move.

## Introduction (discuss the project together, share ideas and create excitement)

- *Have you ever been to the moon?* Neither have I but today we are going to imagine what it would be like to visit the moon for the first time. *What sort of things do you think we would find on the moon?*
- *Show the children the project. Which start block did I use for the spaceman? Which start block did I use for the rocket? How did I control the order in which my characters started moving?* Explain that you had to think carefully about each character's movements and who they would bump into first.
- Close your eyes and imagine you are on the moon, *what do you see? Is anyone else on the moon with you? How do you walk? Can you see Earth from the moon or can you see different planets? Do you see an alien? What colour is it?* Keep your moon ideas in your head ready to make your project.

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## Main Activity Key questions and teaching

1. Select the moon background. Will your spaceperson be visiting the moon or will they visit a different planet? Use the edit tool to customise your background.
2. Choose up to 4 Characters. Use the paint function to draw and personalise the characters.
3. *What will the spaceman say? Where will the spaceperson move first? Which start block should I use for them? Who will they bump into first? How will they get there?* Help the children to make the spaceperson move in an interesting way towards the second character then bump them.
4. *What sounds might your second character make? How could I make them move and play their sound at the same time?* Support any children who are unsure how to do this.
5. Repeat steps 3 and 4 for the remaining three characters. Encourage the children to have a clear design for the order in which the characters bump into each other.
6. Also encourage them to vary each character's movement and sounds.
7. Test and Debug. *Do all your character's get bumped? Do they move how you would like them to? Do they make a sound? Does the spacepersons narration match their movements?*

## Teaching points

- Set a time limit for drawing and customising the background and characters.
- For progression, children could copy-code the first character, code the second character with support, and be encouraged to code the third and fourth characters independently.
- Make sure the children know how to use the 'Go home' button to reset their character's positions.
- Encourage the children to test and debug throughout.

## Possible Extensions

- Make each character simultaneously move across the screen, play a sound and display a visual effect (you will need to use three lines of code per character).
- Make each character's animation more sophisticated, e.g. an alien could land in its spaceship and then jump out and bump another character (Message blocks and Wait blocks will need to be used because if a character is hidden it will not 'Start on bump').
- Can the children tell a story of their visit to the moon.

## To Simplify

- Use fewer characters.
- Code the characters to move and then play a sound in sequence rather than concurrently.

## Finishing up

- Children show their projects to each other. *Do all the characters move? Do the characters move with purpose?*